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ABSTRACT

This paper describes the approach taken by the Office of Compensatory Education of the Michigan Department of Education to provide microcomputer training to Chapter 1 administrators. It reports on the two objectives of the study to evaluate the effects of the training program: (1) to assess the short term effects of teaching administrators to use an electronic spreadsheet program, and (2) to determine the amount and frequency of training necessary to enable educators to use a generic program in administering their programs. A series of six 1-day workshops were conducted in the spring of 1984. Immediately after each workshop, an anonymous questionnaire was administered to all participants asking them to evaluate the effectiveness of the workshop. Three months thereafter, a telephone survey was administered to a random sample of 25 percent of the participants to evaluate the workshop in retrospect. Results indicated that the workshops met the perceived needs of participants and were sufficient to get them started in using a spreadsheet for a predetermined purpose. Workshop success depended upon the availability of at least one computer per two participants, a small teacher-student ratio, and a perceived need of the participants to use the software being taught. Tables of results and a summary of open-ended comments are appended. (Author/TE)

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A METHODOLOGY FOR TRAINING ADMINISTRATORS TO USE MICROCOMPUTERS IN EDUCATIONAL ADMINISTRATION

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ABSTRACT

This paper described the approach taken by the Office of Compensatory Education of the Michigan Department of Education to provide microcomputer training to Chapter 1 administrators and reported on the two objectives of a study to evaluate the effects of the training program. These objectives were:

1. To assess the short term effects of teaching administrators to use an electronic spreadsheet program
2. To determine the amount (and frequency) of training necessary to enable educators to utilize a generic program in administering their programs.

A series of six one-day workshops were conducted in the spring of 1984. An anonymous questionnaire was administered to all participants immediately after each workshop asking participants to evaluate the effectiveness of the workshop. Three months after the workshop, a telephone survey was administered to a random sample of 25% of the participants to evaluate the workshop in retrospect.

Results indicated that the workshops met the perceived needs of participants and were sufficient to get them started in using a spreadsheet for a predetermined purpose. Workshop success was dependent upon the availability of at least one computer per two participants, a small teacher-student ratio, and a perceived need of the participants to use the software being taught.

A METHODOLOGY FOR TRAINING ADMINISTRATORS TO USE MICROCOMPUTERS IN EDUCATIONAL ADMINISTRATION

OBJECTIVES:

This paper will describe the approach taken by the Office of Compensatory Education of the Michigan Department of Education to provide microcomputer training to Chapter 1 administrators and will report on the two objectives of a study to evaluate the effects of the training program. These objectives are:

1. To assess the short term effects of teaching Chapter 1 administrators (who had little previous experience with microcomputers) to use an electronic spreadsheet program
2. To determine the amount (and frequency) of training necessary to enable Chapter 1 administrators to utilize a generic program in administering their programs.

PERSPECTIVE

There is an old expression which says, "Give me a fish and I eat for a day. Teach me to fish and I eat forever." School administrators can be taught to use microcomputer programs designed for a specific task or they may be taught how to use generic programs which may be useful for several tasks.

Examples of the former approach include test scoring and attendance packages, accounting programs and programs written for a specific purpose. The advantage of this approach is that the programs are usually easy to use. The major disadvantage is cost. Since each program is useful for only one type of task, purchasing programs for several tasks can become rather expensive.

The latter approach is to teach administrators how to use generic applications programs which may be useful for several tasks. Examples of such programs are word processors, electronic spreadsheets, data base management systems and graphics packages. In providing for the needs of local school district Chapter 1 administrators, Michigan's Office of Compensatory Education

chose to offer training in a generic program that can be utilized for multiple tasks. In the spring of 1984, the Chapter 1 office sponsored a series of regional workshops on how to use Visicalc in administering Chapter 1 programs.

METHODOLOGY

Prior to scheduling the workshops, the state director of compensatory education met with staff members and a representative of the Region II Chapter 1 Technical Assistance Center. Together they discussed a strategy for providing staff development in microcomputers to Chapter 1 directors in local school districts. The workshops were to provide something more than simply an overview of how microcomputers could be used. First, the staff development was to be intensive so that by the end of the workshop participants would attain a new skill (or become more proficient in that skill). Secondly, the skill to be taught should be relevant and useful to Chapter 1 directors. Based upon previous discussions with Chapter 1 directors, it was decided that the staff development would focus on developing and monitoring a Chapter 1 budget via an electronic spreadsheet. A request was made through the Michigan Department of Education newsletter asking coordinators interested in a workshop on administrative uses of microcomputers to contact the state's Chapter 1 office. On the basis of 173 replies, six regional one-day workshops were scheduled during April, 1984.

Each workshop ranged from 10 to 24 participants with a total of 97 participants. The workshop was conducted by one instructor with one or two assistants, depending upon the number of participants. Thus the instructor to participant ratio was about one to five. It was planned that there would be a microcomputer for every two participants. In actuality, over half of the participants had a microcomputer to themselves.

DATA SOURCE

To assess the short-term effects of the workshop, an anonymous questionnaire was administered to all participants immediately after the workshop. This survey asked participants to evaluate the effectiveness of the workshop in five areas: (1) content; (2) visual materials/handouts; (3) clarity of presentation; (4) usefulness of information; (5) effectiveness of activities. The survey also invited open-ended comments on how the workshop might be improved. Finally, participants were asked if they had used a spreadsheet prior to the workshop; and if (as a result of the workshop) they planned to purchase a spreadsheet program.

Although enthusiasm and good intentions may have been generated by the workshop, the researchers were ultimately interested in knowing if the participants were implementing what they had learned and if additional training was necessary. To assess this, a telephone survey was administered to a random sample of 25% of the participants. Eight questions were asked of each respondent:

(1) What is your present position?

(2) Had you used Visicalc prior to the workshop?

(3) Did you find the workshop helpful to you?

(4) Would you recommend it to others?

(5) Do you have access to someone who can help you with Visicalc?

(6) Have you used Visicalc since the workshop, or plan to use it in the near future?

(7) Would a refresher course in Visicalc be helpful to you?

(8) If so, should it be based on the Michigan Chapter 1 budget, or should it be less specific?

RESULTS

Simple descriptive statistics were generated for each of the items on the survey instruments. On the questionnaire assessing the immediate effects of the workshop, the average responses (on a scale of one to five, with five representing "excellent") ranged from 4.41 to 4.53 (Table 1). Only 12 of 77 respondents (16%) had used a spreadsheet program prior to the workshop. Forty-five respondents (58.44%) did not have access to a spreadsheet program at the time of the workshop. Of these 38 (84.44%) said that as a result of the workshop, they planned to acquire a spreadsheet program.

Forty-three open-ended comments were offered. These were classified into five categories (Appendix):

(1) Positive comments -- 10

(2) Suggestions for more time or follow-up workshops -- 17

(3) Suggestions to decrease student/instructor ratio -- 4

(4) Comments relating to workshop logistics -- 9

(5) Comments indicating participants were overwhelmed or "lost" — 3

Comments related to logistics included two requests for only one computer per participant and three requests for using computers other than Apple.

Of the 25 participants responding to the telephone survey, 76% were Chapter 1 directors; 16% were finance directors; and 8% were classroom teachers. Only 8% of those surveyed had used a spreadsheet program prio to the workshop. All of the respondents (100%) stated that the workshop was helpful to them, and they would recommend it to others. Seventy-six percent responded that they had used Visicalc after the workshop or planned using it in the near future. Similarly, seventy-six percent responded that someone was available to give them assistance

with Visicalc. Sixty percent responded that a refresher course in Visicalc would be helpful to them and that it should address several uses of Visicalc rather than one particular application (Table 2).

Of those who said that someone was available to give them some assistance with Visicalc (19 or 25), 84% (16) had used Visicalc since the workshop or planned to use it in the near future. Conversely, of those who had no one available to help them with Visicalc (6 respondents), only 50% had used Visicalc or planned to use it in the near future.

DISCUSSION

Responses to the evaluation questions immediately after the workshop indicated that participants were very pleased with the content, materials, presentation, usefulness and activities of the workshop. A good portion of the positive responses can be attributed to the fact that participants chose to attend and that the workshop was targeted to a specific application of Visicalc.

The high proportion of those who planned to purchase a spreadsheet program indicated that by the end of the workshop, most participants had enough confidence to try using the program independently. However, 17% of the participants offered the unsolicited comment that more time or a follow-up session would be helpful. Furthermore, in the telephone survey, 60% responded that an additional session would be helpful. Thus, a good portion of the participants still considered themselves neophytes and would probably need some additional assistance in using the spreadsheet programs.

Aside from the survey results, there is also the question of why a spreadsheet program was chosen as the vehicle for providing the first step in computer training, eventhough it is one of the more difficult types of application programs to master. The response is that the driving force of the

training was not computer applications per se but rather learning a skill that would be most helpful in doing one's job; that is learning to build and monitor a budget for Chapter 1. It just so happens that spreadsheets were specifically designed for constructing and maintaining budgets.

Similarly, the trainers chose Visicalc because it was the spreadsheet most commonly available to participants, and because it is available on several computer models. Admittedly, however, choosing one type of program and one type of computer for regional or state workshops presents somewhat of a dilemma.

CONCLUSIONS

This study indicates that a one-day workshop on using a spreadsheet program can meet the perceived needs of participants and is sufficient to get them started in using a spreadsheet for a predetermined purpose. Workshop success is dependent upon the availability of at least one computer per two participants, a small teacher-student ratio, and a perceived need of the participants to use the software being taught. Equally important is designing the workshop instruction in such a fashion that participants learn to use the software by working on a relevant task.

The data strongly suggest, however, that long term success in using a spreadsheet program for alternative tasks is dependent upon the availability of further instruction through either an individual, or a follow-up workshop.

TABLE 1

WORKSHOP EVALUATION RESULTS

QUESTION	RESPONSES	
	N	X
Content of the workshop	77	4.53*
Visual Materials/Handouts	77	4.45
Clarity of Presentation	77	4.49
Usefulness of Information	77	4.46
Activities	77	4.41

* Response choices were 1 through 5, with 1 equal to "poor" and 5 equal to "excellent".

	YES	NO	% YES
Had you used a spreadsheet prior to the workshop?	12	65	15.58
Do you have access to a spreadsheet program?	32	45	41.56
If you do not have access to a spreadsheet program, do you plan to purchase one?	38	7	84.44

TABLE 2

TELEPHONE SURVEY RESULTS

QUESTION	YES	NO	% YES
Had you used Visicalc prior to the workshop?	2	23	8
Was the workshop helpful to you?	25	0	100
Would you recommend the workshop to others?	25	0	100
Have you used Visicalc since the workshop or plan to use it?	19	6	76
Do you have access to someone who can help you with Visicalc?	19	6	76
Would a refresher session in Visicalc be helpful to you?	25	0	100
Should the session take a more general approach than the first session did?	15	10	60

APPENDIX

SUMMARY OF OPEN-ENDED COMMENTS

Easy to follow; great; I learned a lot ...	10
A two or three day workshop would be great.	1
More time!	9
A follow-up workshop would be great.	4
Two sessions would be better.	2
The session should allow for more independent work.	1
Smaller groups would allow for more individual help.	1
More aides to assist at micro stations would be helpful.	3
Utilize more types of computers	3
Have the morning break before presenting Michigan budget	1
Make participants aware beforehand that a Visicalc program is needed to use the program independently.	1
Use more copies of the program to decrease machine loading time	1
Insist on one computer per participant	2
Tell participants an Apple IIe is easier to use than an Apple II+	1
Too much, too fast!	1
More emphasis on general operating procedures.	1
I was lost!	1